

Introduction

I am a Graduate Engineer working for Kier's Professional Services department. I have been with the Company for two years, and have a degree in Civil Engineering. I am a Graduate Member of the Institution of Civil Engineers, and I am working towards chartership.



Image: **RACHEL BURDEN**, GRADUATE ENGINEER – KIER (PROFESSIONAL SERVICES)

How did you get started in your career?

At school I was good at maths and science, so I took a degree in Civil Engineering at university. During the summers, I worked as a placement student with Kier, sometimes on construction sites and sometimes in the office. At the end of my degree, they employed me full time as a Graduate Design Engineer in the office.

Can you outline a typical work day?

On a typical day, I carry out engineering design work for Kier sites. This involves calculations and discussing design ideas with our site teams. These designs are usually for 'temporary works' – items that help the site team to construct a structure – for example, a foundation for a tower crane.

What do you enjoy most about your job?

Every day is a little bit different, there's always a new challenge, and I work with a great team. Whenever I produce a design, I know that it will be constructed/ implemented so that ultimately people are kept safe, and the construction work can go ahead.

What skills are important for anyone wishing to start in your profession?

Anyone wanting to become an engineer needs to have a good technical mind (e.g. are good at maths/science), but also some creativity is useful! Creativity can help an engineer to find new solutions to existing problems. Engineers also need to be able to work with others in a team, and have some good communication skills.

What main personal attributes do you think is important for your type of job?

It's important to have an enjoyment of problem solving; it's a challenging job, but if you enjoy it, it's worth it!

Do you have any tips or suggestions on how young people and adults can enter your industry?

I took a full-time degree in Civil Engineering, but some people do this degree part-time whilst working. You need A-levels in Maths and Science, but some universities offer Foundation Courses to get you up to speed if you didn't take the right subjects, didn't achieve high enough grades or have had a significant gap between finishing school and deciding to take up engineering (for instance if you started on another career).

What career progression opportunities are available in your business/sector?

As a Graduate Engineer, I'm aiming to become chartered, which means I am recognised by the industry as a competent engineer, with enough experience to lead the way in design work, and support my own team. There are also opportunities to cross over into other areas, such as research, business or project management.

Why is it important for your sector to attract and train young people and new entrants?

In the last few years the industry has picked up, and this has increased employment opportunities. However, the industry is still short on young engineers, and is known to have an 'aging workforce'. More young engineers are needed to take the place of the older workforce when they leave the industry. Also, with big national construction projects such as Crossrail and Hinkley Point C, it's important to have the constant supply of fresh ideas that new entrants bring.

What trends do you predict for your industry within the next 10 years? E.g. is it a growing market requiring more young entrants

As mentioned above, the industry is picking up, and needs more young engineers to start leading the way. Current employment prospects for graduate engineers are good, and there are lots of exciting construction projects on the horizon (such as High Speed 2 and Hinkley Point C) for young engineers to get involved in.

General words of advice

Don't be put off by the stereotypes! A degree in Engineering can lead to a range of jobs, whether on site or in an office, which means it can suit a range of people. It's a challenging career, but for those who enjoy problem solving and want to leave their mark on the world, it's a great choice.

Further contact/information

If you want to ask me anything about engineering or my day-to-day role, you can send me an email at Rachel.burden@kier.co.uk.

Search 'National Careers Service' online to view any of our hundreds of job profiles.